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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,525	10/16/2003	Franz-Erich Baumann	240709US0	6006

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ALEXANDRIA, VA 22314

EXAMINER
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WOODWARD, ANA LUCRECIA

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/685,525	Applicant(s) BAUMANN ET AL.	
	Examiner Ana L. Woodward	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE Three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 3/22/2004
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/22/04</u> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. Claims 1-14, 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is unclear as to whether or not the language “at least one polyamide and titanium dioxide particles” means “at least one polyamide” *or* “at least one titanium dioxide particles”. That is, as presently recited, it is unclear as to whether or not both components are required.

In claim 3, the language “one or more of” is confusing.

It is unclear if or how the subject matter of claim further limits the base claim. In this regard, it would be expected that the powder composition of the base claim would necessarily contain the polyamide in particulate or powder form.

Claim 9 is indefinite with respect to the metes and bounds of the auxiliary or filler. As presently recited, said components and the titanium dioxide particles of the base claim read on one and the same entity.

In claims 10 and 11, it is unclear as to whether or not the components recited therein are definitive of the “auxiliary or filler” per claim 9.

In claim 10, “flow aid” is indefinite as to scope and meaning.

Claim 21 is indefinite with respect to the metes and bounds of the filler because said component reads on the titanium dioxide of the base claim.

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In claim 22, it is unclear as to whether or not the recited components are definitive of the “filler” per claim 21.

***Claim Rejections - 35 USC § 102/103***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4-7, 9, 12, 13, 15, 18, 19 and 21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. 3,910,861 (Wolvers et al).

Wolvers et al disclose the preparation of a powder composition comprising polyamide and titanium dioxide particles. See example IX wherein titanium dioxide-containing polyamide particles are prepared by the anionic polymerization of a lactam, in solution, in the presence of a powdery titanium dioxide.

The disclosure of the reference meets the requirements of the above-rejected claims both in terms of the types of materials added and their contents. Applicants’ preambular language “laser sintering” does lend patentability to the present claims. The filled polyamide particles of the reference are compositionally the same and further can be processed by whirl-sintering

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techniques (column 4, lines 1-5). Accordingly, it is reasonably believed that the reference's powder composition would function as a "laser sintering" composition.

With respect to product-by-process claim 15, while the claim may recite process limitations, it is the patentability of the product, which must be established. The product is unpatentable because the reference discloses a product, which reasonably appears to be identical with the claimed product.

Claims 9 and 21 have been incorporated into this rejection because the generic filler component simultaneously reads on the titanium dioxide.

5. Claims 1, 2, 4-7, 9, 10, 12-16, 18, 19 and 21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over French 1545209.

The reference exemplifies the production of powdered compositions comprising polyamide and titanium dioxide particles (examples 2, 4 and 5). A silicate aerogel is added as a flow aid and the powdered composition is irradiated.

The disclosure of the reference meets the requirements of the above-rejected claims both in terms of the types of materials added and their contents. Applicants' preamble language "laser sintering" does lend patentability to the present claims. The filled polyamide particles of the reference are compositionally the same and are subjected to an irradiation technique, which reasonably appears to meet the laser-sintering process per claim 14.

The product is unpatentable because the reference discloses a product, which reasonably appears to be identical with the claimed product.

Claim 21 has been incorporated into this rejection because the generic filler component simultaneously reads on the titanium dioxide.

***Claim Rejections - 35 USC § 103***

6. Claims 2, 3, 8, 10, 11, 14, 16, 17, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 3,910,861 (Wolvers et al), described hereinabove, further in view of U.S. 6,211,266 (Weber et al) and French 1545209.

While the examples of Wolver et al do not illustrate the use of polyamides having at least 8 carbon atoms, it is understood that the procedures of the examples may also be employed with other lactam monomers having up to 12 carbon atoms (column 3, lines 35-42).

As to the limitations of claims 8 and 20, rutile and anatase are two of the most common crystal forms of titanium dioxide and, as such, their use in the composition of Wolver et al would have been prima facie obvious (per Weber et al column 8, lines 24-27).

With respect to the use of additional auxiliaries or fillers, e.g., glass fibres and silicates, it is possible for mixtures of fillers to be employed in the production of patentees' composition (column 5, lines 3-40).

Applicants' process comprising selectively laser-sintering the powder appears to be an obvious technique of the whirl-sintering methods disclosed by Wolver et al. In any event, it would have been obvious to laser sinter the polyamide powder of Wolver et al in light of the French '209 teachings that illustrates irradiating similar-such titanium dioxide-filled polyamide powders (examples 2, 4 and 5).

7. Claims 8, 11, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over French 1545209 in view of U.S. 3,910,861 (Wolvers et al).

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As to the limitations of claims 8 and 20, rutile and anatase are two of the most common crystal forms of titanium dioxide and, as such, their use in the composition of Wolvers et al would have been prima facie obvious (per Weber et al column 8, lines 24-27).

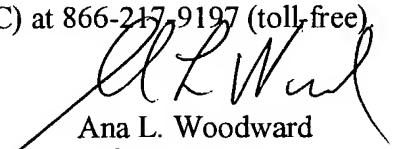
With respect to the use of the use of additional fillers, e.g., glass fibres, it is known in the prior art that mixtures of fillers can be used in the production of similar-such titanium dioxide-filled polyamide powders compositions (Wolvers et al). Accordingly, the further addition of glass fibers into the powder compositions disclosed by the French reference would have been obvious to one having ordinary skill in the art.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana L. Woodward whose telephone number is (571) 272-1082. The examiner can normally be reached on Monday-Friday (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ana L. Woodward  
Examiner  
Art Unit 1711